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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,397	02/13/2004	Naoki Shindo	199372003910	2798

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EXAMINER	
MARKOFF, ALEXANDER	
ART UNIT	**PAPER NUMBER**
1792	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/779,397	SHINDO ET AL.	
	Examiner	Art Unit	
	Alexander Markoff	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-14,16,18 and 30-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-14, 16, 18 and 30-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/19/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12-14, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamikawa et al (US Patent No 5,940,985).

Kamikawa et al teach a method as claimed. See entire document especially Figures 7-9, 14 and description at column 8, line 56 - column 13, line 57 and column 17, lines 30-63.

The newly presented steps of generating of a solvent vapor with fluid communication of between the solvent vapor generator and the processing container being disconnected and connecting based on the comparison result are inherent from the teaching presented at least at column 9, lines 4-11. It is again noted that the introduction of nitrogen gas into the chamber would create a pressure higher than the atmospheric pressure otherwise the flow to the outside of the chamber would not exist.

Thereby the steps of venting the process chamber with nitrogen, which is followed by introduction of the IPA vapor would meet the claimed limitations.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 12-14, 16, 18 and 30-32 rejected under 35 U.S.C. 103(a) as being unpatentable over Toshima et al (US Patent No 6,613,692; DE 10036867).

Toshima et al teach a method as claimed except for the specific recitation of the step of generating of a solvent vapor with fluid communication of between the solvent vapor generator and the processing container being disconnected. See entire document, especially Figures 6, 11, 12, 14, 16, 17, 20, 21, and 35 the related description and the description at columns 8, 10-11, 15-16, 23-26 column 33, lines 56-67.

However, Toshima et al teaches a valve (179, on Figure 11, 375 on Figure, 376 on Figure 35) between the vapor generator and the processing vessel.

It would have been obvious to an ordinary artisan to keep the valve (376,375) between the vapor generator and the processing vessel shut until the steam generator is at working conditions to ensure the proper operation of the equipment.

It is also noted that Toshima et al teach maintaining the pressure in the processing vessel at 196 kPa, which is above the atmospheric pressure.

The proper pressure in the vapor generator is maintained by the maintaining the required temperature.

It would have been obvious to an ordinary artisan at the time the invention was made that the pressure in the vapor generator is maintained above the pressure of the processing vessel to enable the intended operation of the equipment and to deliver the vapor into the processing vessel.

It would also have been obvious to an ordinary artisan at the time the invention was made to open the valve (179, 375, 376) only when the pressure in the vapor generator is above of the pressure in the processing vessel to enable the intended operation of the equipment and to deliver the vapor into the processing vessel and to prevent the flow of the processing fluids from the processing vessel into the vapor generator.

As to claim 30:

This claim requires the use of a pressure sensor. Toshima et al do not specifically teach the use of a pressure sensor on the vapor generator.

However, it would have been obvious to an ordinary artisan at the time the invention was made to provide the vapor generator of Toshima et al with a pressure sensor and used it to further control the generator and to ensure the safe operation of the generator, because it was notoriously well-known in the art to provide the devices, which are operated under the pressure with a pressure sensors to regulate and monitor the work of the devices.

Response to Arguments

7. Applicant's arguments filed 8/21/09 have been fully considered but they are not persuasive. The applicants amended claims and argue that the rejections over Toshima et al and Kamikawa et al are not proper.

With respect to Toshima et al the amended claims are addressed in the rejection above. Toshima et al teach monitoring of the temperature of the vapor generation to ensure the proper functioning of the generator and to ensure that the vapor would be delivered to the processing vessel.

Kamikawa et al, in contrast to the applicants' arguments, teach that the valve is opened in a state that the pressure in the container 101 is higher than the pressure in the process chamber (at least column 9, lines 4-11).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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